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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,540	03/14/2001	Takashi Masaki	0941.65295	3816

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EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 10/10/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,540

Applicant(s)

MASAKI ET AL.

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending for the examination. Claims 19-20 are removed from further consideration.

Election/Restriction

2. Claims 19-20 withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b) as being drawn to figs. 19-20 for second and third embodiment. Election was made with traverse of claims 1-18.

Applicant's election with traverse of species a. in Paper No. 5 is acknowledged. The traversal is on the ground(s) that "a search for all of the species would not place an undue burden on the Examiner."

This is not found persuasive because, the Examiner does not need to show how much burden a particular search may or may not put on the Examiner. See 803.00 and 808.01(a); M.P.E.P.

The requirement is still deemed proper and is therefore made **FINAL**.

Applicant is reminded that **upon the cancellation of claims to a non-elected invention, the inventorship must be amended** in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

The Applicants are urged to cancel the non-elected claims 19-20 in response to this office action.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

Drawings/Objection

5. The drawings are objected for following reasons:

The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show *every feature* of the invention specified in the claims. Therefore, "A first controller" for decreasing the rotational speed and "a second controller" for increasing the rotational speed, when read or write margin becomes greater, must be shown or the feature canceled from the claim. **No new matter should be entered.**

Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects must consist of **two parts**:

1. A separate letter to the Draftsman in accordance with MPEP § 608.02 (r); and,
2. A print or pen-and-ink sketch showing changes in **red ink** in accordance with MPEP § 608.02 (v).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in *red ink* is required in response to this Office Action, and may not be deferred.

Correction is required.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 1 and 10 are rejected under 35 U.S.C. § 102(e) as being anticipated by Takayuki, JPO publication 2000207815 A (Abstract) (hereafter Takayuki).

As to claim 1, Takayuki discloses the invention as claimed [see Figs. 1] including decreasing the rotational speed and increasing the rotational speed, comprising the steps of:

(a) decreasing the rotational speed when a read or write margin becomes less than or equal to a first predetermined value or, when a frequency of generation of a servo abnormality [tracking error signal] of a tracking servo and/or a focus servo is greater than or equal to a first predetermined frequency [set allowable amount]; and

(b) increasing the rotational speed when the read or write margin becomes greater than or equal to a second predetermined value or, when the frequency of generation of the servo abnormality of the tracking servo and/or the focus servo is less than or equal to a second predetermined frequency [abstract].

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NOTE: Takayuki discloses reducing [decreasing] the rotational speed. Takayuki also states specifying the rotation speed which inherently has mechanism to increase or decrease the speed.

7. As to claim 10, it is an apparatus claim corresponding to claim 1 and it is therefore rejected for the similar reasons set forth in the rejection of claim 1, supra.

Claim Rejections - 35 U.S.C. § 103

8. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2-9 and 11-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takeshita, US. patent 6,556,524 (hereafter Takeshita) in view of Takayuki as applied to claim 1 and 10 above.

As to claim 2, Takeshita discloses the invention as claimed [see Figs. 1-5D], including a test write process and controlling optimum write power comprising the steps of:

steps (a) and (b) respectively control the rotational speed depending on a result of at least one of a test write process and a learning process which is carried out with respect to a read or write process [col. 6, line 35 to col. 7, line 23];

Takeshita discloses all of the above steps, including controlling rotational speed depending upon the test write process. Takeshita does not specifically disclose frequency of generation of servo abnormality of tracking or focus servo to the extent claimed.

However, it is well known in the art that most modern system does accumulate some kind of error signals and also check frequency of the errors to see how good or bad the original disc is and how to control speed on the basis of frequency of errors and store that information in table or memory. Also Takayuki clearly discloses:

checking for a tracking error signal and compare it to a preliminary set allowable amount [threshold or value] [abstract].

Both Takeshita and Takayuki are interested in improving the rotational control method of a disc, both are monitoring tracking error and or focus error in their systems.

One of ordinary skill in the art at the time of invention would have realized that vibrations, errors or abnormality needs to be controlled in a system and at the same time reduction in the manufacturing cost and thinning of the device are advantageous things to have in a system. Therefore, it would have been obvious to have used an error signal monitoring which controls the speed of the motor in the system of Takeshita as taught by Takayuki because one would be motivated to reduce the cost of the system and also make device thinner thus saving money and space.

10. As to claim 3, Takeshita discloses:

said step (a) detects that the read or write margin is less than or equal to the first predetermined value when an optimum write power of a light source with respect to the optical recording medium obtained by the test write process exceeds a reference value; and

said step (b) detects that the read or write margin is greater than or equal to the second predetermined value when a margin greater than or equal to a predetermined value exists with respect to the reference value [col. 8, line 6-53].

11. As to claim 4, Takeshita discloses:

said step (a) decreases the rotational speed [fig. 3, step S26] when a read error rate improves at a write power exceeding an upper limit value of a write power obtained by the test write process or the learning process [col. 8, lines 6-53].

12. As to claim 5, Takeshita discloses:

said step (b) increases the rotational speed when the optimum write power obtained by the test write process or the learning process has a sufficient margin with respect to an upper limit value of the write power [col. 9, line 43 to col. 10, line 17 and figs 5A-5D].

13. As to claim 6, Takeshita discloses:

(c) counting up a number of times a judgement is made to decrease the rotational speed by said step (a) and counting down a number of times a judgement is made to increase the rotational speed by said step (b), and enabling said step (a) when a count reaches an upper limit value and enabling said step (b) when a lower limit value is reached [col. 8, lines 6-36 and col. 9, lines 9-36 and Table 1].

14. As to claim 7, Takeshita discloses:

said step (c) counts a number of judgements made based on a result of a test write process with a weighting larger than a number of judgements made based on a result of a learning process which is carried out with respect to a read or write process [col. 8, lines 6-36 and col. 9, lines 9-36 and Table 1].

15. As to claim 8, Takeshita discloses:

(c) measuring an amount of eccentricity of the optical recording medium, said step (a) detecting that the read or write margin is less than or equal to the first predetermined value when the measured amount of eccentricity exceeds a reference value [col 6, lines 9-32 and col. 8, lines 6-36].

16. As to claim 9, Takeshita discloses:

(c) measuring an amount of eccentricity of the optical recording medium, said step (a) switching a value of the first predetermined frequency depending on the measured amount of eccentricity [col 6, lines 9-32 and col. 8, lines 6-36].

17. As to claims 11-18, they are apparatus claims corresponding to method claims 2-9 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 2-9 respectively, supra.

Other prior art cited

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Ishibashi et al. (US. patent 6,134,197) Optical disk drive apparatus
 - b. Hirashima (US. patent 6,377,527) Disk drive having a function ..
 - c. Muramatsu et al. (US. patent 5,592,463) Apparatus for and method for determining optimum power for recording information ...
 - d. Suga (US. patent 6,418,102) Method and apparatus for performing optimum laser power calibration on optical disk
 - e. Masaki et al. (US. patent 6,275,462) Optical storage apparatus
 - f. Ito et al. (US. patent 5,475,666) Optically modulated overwritable recording device
 - g. Suzuki et al. (US. patent 5,592,448) Access control apparatus ...
 - h. Baas et al. (US. patent 4,809,253) "Focus control through detection of the rate of error in discs"

Contact information

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is

(703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

A handwritten signature in black ink, reading "Gautam R. Patel". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Gautam R. Patel
Patent Examiner
Group Art Unit 2655

October 5, 2003